Licensable Technologies

Blackbox (bX)

Applications and Users:

- Data software and services
- Libraries
- Information centers
- Research institutions

Benefits:

- Standards-based
- Modular design
- Highly extensible
- Alternative usage metrics
- Dynamic scholarly services

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Summary:

Digital library usage logs are a highly valuable source of information that can be exploited for research support services on the level of local institutions and the global research community. The Blackbox (bX) software developed at Los Alamos National Laboratory (LANL) offers a novel approach to aggregate, harvest, and provide services based on electronic resource usage metrics . Traditional methods are often based on citation frequencies or some other modification. Unfortunately, frequency-based metrics operate as popularity polls, representing a very limited measure of impact. LANL's approach can be used as an alternative to or supplement for the existing, citation-based processes.

The bX software provides a standards-based architecture for the recording, storage and distribution of digital library usage logs. Local usage events recorded by the user's institutional service component (OpenURL) enable the linking of servers using simple packaging formats (ContexObjects), which are then serialized as extensible markup language (XML) objects. The latter can then be locally exposed and centrally harvested by means of the Open Archives Initiative Protocol for Metadata Harvesting. A set of analysis mechanisms and services has been developed to make use of both local and aggregated logs, such as a software to rank items according to their scholarly impact and a system to generate document recommendations.

This technology differs from conventional technologies in many ways, including but not limited to a focus on usage data rather than citation data and not the capability to limit the nature of the scholarly works for which indicators can be computed. It also incorporates structural and contextual dimensions. As a result, LANL's approach is a more efficient and effective means for deriving content impact and metrics.

Development Stage: Prototype testing is underway. Contact the Technology Transfer Division for evaluation details.

IP Status: Copyright protected. Patent application(s) pending.

Licensing Status:

We are seeking to license this technology either non-exclusively or exclusively for specific field of use. We would also entertain offers to work collaboratively in the form of a Cooperative Research and Development Agreement (CRADA). Any agreement contract is expected to include funds-in to the Laboratory.

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